

REMARKS

The above-identified patent application has been amended and Applicants respectfully requests the Examiner to reconsider and again examine the claims as amended.

Claims 1 - 5, 10, 12 – 15 are pending in the application. Claims 1-6, 10 and 12-15 were rejected. Claims 1, 10, 12, and 13 are amended herein. Claim 6 was canceled.

The Examiner rejected Claims 1, 4 and 5 under 35 U.S.C. 102(e) as being anticipated by Jalali. Claims 2 and 3 were rejected under 35 U.S.C. 103(a) as being unpatentable over Jalali. Claim 6 was rejected under 35 U.S.C. 103(a) as being unpatentable over Jalali in view of Steele. Claim 10 was rejected under 35 U.S.C. 103(a) as being unpatentable over Jalali in view of Huang et al. Claim 13 was rejected under 35 U.S.C. 103(a) as being unpatentable over Jalali in view of Roberts. Claims 14-15 was rejected under 35 U.S.C. 103(a) as being unpatentable over Jalali in view of Roberts and further in view of Rakib et al. Claim 12 was rejected under 35 U.S.C. 103(a) as being unpatentable over Jalali in view of Roberts and further in view of Steele.

Applicants wish to thank the Examiner for the time and attention to this application.

A review of U.S. patent number 6,421,333 shows that the reference teaches a technique for providing a plurality of m symbols (col. 2, lines 61-65) and then each one of the m symbols is retrieved for transmission sequentially on the carriers f1, f2, f3, etc. (col. 3, lines 19-24) The latter technique is claimed in this patent stating ... “the retrieved coded symbols are sequentially transmitted using the plurality of carriers, except that upon reaching a first coded symbol of a next row or column, respectively, the sequential transmission will begin with one of the plurality of carriers other than the next carrier in the sequence. Jalali neither describes nor suggests segregating the plurality of carriers into a plurality subbands and transmitting the retrieved coded symbols into a different one of the plurality of subbands.

The present invention teaches a technique to reduce the effects of heavy absorption of direct signal path propagation and the effects of multipath in an Orthogonal Frequency Modulation (OFDM) like system using the feature of "an interleaver to map each symbol of one of the plurality of symbol blocks into a different one of the plurality of subbands" which is not taught by Jalali. The present invention does not map each symbol into sequential carriers as taught by Jalali, but maps each symbol into a different subband of carriers such that the symbols are not on sequential carriers. As taught in the specification on page 9, lines 9 - 12, the novel technique is based on subband coding where the spread bandwidth is divided into subbands and forward error correction (FEC) is used to erase symbols transmitted on faded or jammed subbands and to correct symbols transmitted on faded subbands with high subband error rates.

It is respectfully submitted that Claim 1 is patentable over Jalali, since Jalali neither describes nor suggests " ... an interleaver to map each symbol of one of the plurality of symbol blocks into a different one of the plurality of subbands"

As Claims 2 through 5 depend from Claim 1 and cite additional structure, they too are allowable for analogous reasons.

Independent Claim 10 is neither described nor suggested by the references since the references taken separately or in combination neither describe nor suggest the steps of "... interleaving each symbol of one of the symbol blocks across a plurality of coherent subbands wherein each symbol from each one of the symbol blocks is mapped to a different one of the plurality of coherent subbands"

Independent Claim 13 is neither described nor suggested by the references since the references taken separately or in combination neither describe nor suggest "...an interleaver to map each one of the plurality of symbols from each one of the plurality of symbol groups into a corresponding different one of a plurality of coherent subbands"

As Claims 12, 14 and 15 depend from Claim 13 and cite additional structure, they too are allowable for analogous reasons.

Applicants have submitted herewith a Petition for an Extension of Time for three (3) months with authorization to charge payment to Deposit Account No. 500845 to cover the costs of the petition.

The Assistant Commissioner is hereby authorized to charge payment of any additional fees associated with this communication or credit any overpayment to Deposit Account No. 500845.


Accordingly, re-examination and reconsideration are requested in view of the above amendment and remarks.

If the Examiner has any questions regarding this Amendment or this application, he or she is respectfully invited to telephone the undersigning attorney.

Respectfully submitted,

Dated: January 11, 2007

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